

Comparisons of Job Characteristics

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 86

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mechanical	6.8	13.9	9.5	<<	Extensive education and/or training may be required
Design	5.2	8.3	6.0	<<	Extensive education and/or training may be required
Public Safety and Security	6.9	8.3	4.0	<<	Extensive education and/or training may be required
Chemistry	4.8	6.5	2.5	<<	Extensive education and/or training may be required
Building and Construction	4.0	5.4	4.9	<	Expanded education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 76

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Quality Control Analysis	5.9	11.4	7.4	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	9.1	6.2	<<	Extensive development of skills in this area may be required
Installation	1.7	8.1	1.6	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	7.3	5.4	<<	Extensive development of skills in this area may be required

Equipment Maintenance	3.5	7.1	5.9	<	A higher skill level may be required
Repairing	3.4	7.1	5.9	<	A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 88			
Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121) Associated Occupation: Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Visualization	7.5	12.0	8.6	<<	Extensive improvement in abilities may be required
Finger Dexterity	7.6	11.4	9.7	<	Some improvement in abilities may be required
Far Vision	7.8	10.5	6.6	<<	Extensive improvement in abilities may be required
Extent Flexibility	4.8	9.8	5.2	<<	Extensive improvement in abilities may be required
Auditory Attention	5.9	9.1	6.3	<<	Extensive improvement in abilities may be required
Depth Perception	5.3	9.0	7.1	<	Some improvement in abilities may be required
Gross Body Equilibrium	3.2	7.1	3.2	<<	Extensive improvement in abilities may be required
Glare Sensitivity	2.6	6.0	2.2	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 86
Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121) Associated Occupation: Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)		
Work Activities	Exclusivity of Activity	
Apply cleaning solvents	41	
Apply protective coating to products	84	
Attach or mark identification onto products or containers	54	
Braze metal parts or components together	85	
Examine products or work to verify conformance to specifications	15	
Fabricate, assemble, or disassemble manufactured products by hand	11	
File, sand, grind, or polish metal or plastic objects	82	
Identify base metals for welding	68	
Identify properties of metals for repair or fabrication activities	71	

Lay out machining, welding or precision assembly projects	63
Move or fit heavy objects	8
Perform safety inspections in industrial, manufacturing or repair setting	32
Read blueprints	10
Read specifications	23
Read technical drawings	7
Read work order, instructions, formulas, or processing charts	9
Signal directions or warnings to coworkers	42
Solder metal parts or components together	73
Understand technical operating, service or repair manuals	6
Use acetylene welding/cutting torch	54
Use hand or power tools	2
Use precision measuring tools or equipment	17
Use soldering equipment	44
Use spot or tack welding techniques	87
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 83

Focus Occupation: Welders, Cutters, Solderers, and Brazers (51-4121)

Associated Occupation: Aircraft Structure, Surfaces, Rigging, and Systems Assemblers (51-2011)

Tools and Technologies	Exclusivity
Computers	1
Content authoring and editing software	1
Data management and query software	1
Drafting supplies	9
Face and head protection	7
Forming tools	2
Holding and clamping tools	3
Holding and positioning and guiding systems and devices	23
Industry specific software	1
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Machinery for working wood and stone and ceramic and the like	12
Marking tools	11
Metal bending and forming machinery	17
Pneumatic tools	8
Power tools	2
Robotics	33
Rough and finishing tools	5
Safety apparel	4

Soldering and brazing and welding machinery and supplies	6
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.